

Part 1 General

1.1 References

- .1 American Society for Testing and Materials (ASTM International)
 - .1 ASTM C635-00, Specifications for the Manufacture, Performance and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - .2 ASTM C636-96, Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.

1.2 Design Requirements

- .2 Maximum deflection: 1/360th of span to ASTM C635 deflection test.

1.3 Shop Drawings

- .3 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .4 Submit reflected ceiling plans for special grid patterns as indicated.
- .5 Indicate lay-out, insert and hanger spacing and fastening details, splicing method for main and cross runners, location of access splines change in level details, access door dimensions, and locations and acoustical unit support at ceiling fixture lateral bracing and accessories.

1.4 Samples

- .6 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .7 Submit one representative model of each type ceiling suspension system.
- .8 Ceiling system to show basic construction and assembly, treatment at walls, recessed fixtures, splicing, interlocking, finishes, acoustical unit installation.

1.5 Regulatory Requirements

- .9 Fire-resistance rated suspension system: certified by a Canadian Certification Organization accredited by Standards Council of Canada.

Part 2 Products

2.1 Materials

- .1 Intermediate duty system to ASTM C635.
- .2 Basic materials for suspension system: commercial quality cold rolled steel zinc coated.
- .3 Suspension system: non fire rated, made up as follows:
 - .1 Two directional exposed tee bar grid.
 - .1 Acceptable material: Prelude, Armstrong or approved equal.
- .4 Exposed tee bar grid components: shop painted satin sheen white colour. Components die cut. Main tee with double web, rectangular bulb and 25 mm rolled cap on exposed face.

- .5 Hanger wire: galvanized soft annealed steel wire.
 - .1 3.6 mm diameter for access tile ceilings.
 - .2 To ULC design requirements for fire rated assemblies.
 - .3 3.6 mm diameter for gypsum board ceilings.
- .6 Hanger inserts: purpose made.
- .7 Carrying channels: 38 x 64 mm channel, of .912 mm thick galvanized steel as required.
- .8 Accessories: splices, clips, wire ties, retainers and wall moulding, to complement suspension system components, as recommended by system manufacturer.

Part 3 Execution

3.1 Installation

- .1 Installation: in accordance with ASTM C636 except where specified otherwise.
- .2 Install suspension system to manufacturer's instructions and Certification Organizations tested design requirements.
- .3 Install hangers spaced at maximum 1200 mm centres and within 150 mm from ends of main tees.
- .4 Lay out centre line of ceiling both ways, to provide balanced borders at room perimeter with border units not less than 50% of standard unit width system according to reflected ceiling plan unless shown otherwise in the reflected ceiling plan.
- .5 Ensure suspension system is co-ordinated with location of related components.
- .6 Install wall moulding to provide correct ceiling height.
- .7 Completed suspension system to support super-imposed loads, such as lighting fixtures diffusers and grilles.
- .8 Support at light fixtures diffusers with additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.
- .9 Interlock cross member to main runner to provide rigid assembly.
- .10 Frame at openings for light fixtures, air diffusers, speakers and at changes in ceiling heights.
- .11 Install access splines to provide 10 percent ceiling access.
- .12 Finished ceiling system to be square with adjoining walls and level within 1:1000.

3.2 Cleaning

- .13 Touch up scratches, abrasions, voids and other defects in painted surfaces.

END OF SECTION